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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:	
Ozluturk et al.	
Application No.: Not Yet Known	Our File: I-2-91.8US
Filed: Not Yet Known	Date: December 21, 2000
For: CODE DIVISION MULTIPLE ACCESS (CDMA) COMMUNICATION SYSTEM	
Group: Not Yet Known	
Examiner: Not Yet Known	

PRELIMINARY AMENDMENT

Box PATENT APPLICATION
Commissioner for Patents
Washington, D.C. 20231

Sir:

Prior to the initial Office Action, Applicants respectfully request that the application be amended as follows:

IN THE TITLE

Please delete the title in its entirety and insert therefor --SYSTEM FOR USING RAPID ACQUISITION SPREADING CODES FOR SPREAD-SPECTRUM COMMUNICATIONS--.

IN THE CLAIMS

Please cancel claim 1 without prejudice.

Please add the following new claims:

--2. A system for rapidly acquiring a spreading code used in a code division multiple access (CDMA) system, comprising:

a code generator for generating a plurality of P long codes, where P is a number of long codes in the plurality of long codes, with each long code having a length N chips, with each long code different from the other long codes in the plurality of long codes;

a transmitter, coupled to said code generator, for transmitting, over a communications channel using radio waves, the plurality of long codes at a plurality of phase angles, respectively, on a carrier signal, with each phase angle in the plurality of phase angles different from other phase angles in the plurality of phase angles; and

an acquisition circuit, coupled to the communications channel, for acquiring from the communications channel using said phase-acquisition circuit, the plurality of long codes, respectively, by searching, in parallel, N/P chips of each long code of the plurality of long codes.

3. The system as set forth in claim 2, wherein said acquisition circuit acquires from the communications channel using the phase-acquisition circuit, the plurality of long codes from the plurality of phase angles, respectively, of the carrier signal by searching, in parallel, N/P chips of each of the plurality of long codes.

4. The system of claim 3 wherein said transmitter transmits the plurality of long codes at the plurality of phase angles, respectively, on the carrier signal, with each phase angle in the plurality of phase angles representing an M-ary phase scheme.

5. The system of claim 4, wherein said acquisition circuit acquires from the communications channel using the phase-acquisition circuit, the plurality of long codes, respectively, of the carrier signal by searching, in parallel, N/P chips of a first long code and a second long code.

6. The system of claim 2, wherein said generator generates the plurality of long codes from a multiplicity of short codes, with each short code different from other short codes and each short code having a length less than N chips, with a first short code thereby embedded in a first long code and a second short code embedded in a second long code.

7. The system of claim 6, wherein said acquisition circuit acquires, from the communications channel using the phase-acquisition circuit the first short code embedded in the first long code and the second short code embedded in the second long code, from the first phase angle and the second phase angle, respectively, by searching, in parallel, N/P chips of the first short code and the second short code.--

IN THE ABSTRACT

Delete the current abstract, and substitute the following abstract therefor:

--A system for rapidly acquiring a spreading code, used in a code division multiple access (CDMA) system comprises a generator for generating a first long code and a second long code, with each long code having a length of N chips. The first long code is different from the second long code. A transmitter transmits the first long code and the second long code at a first phase angle and at a second phase angle, respectively, on a carrier signal over a communications channel using radio waves. The first long code and the second long code may be transmitted at an in-phase (I) angle and at a quadrature-phase (Q) angle, respectively, on the carrier signal. From the communications channel, an I acquisition circuit and a Q acquisition circuit may acquire, in parallel, the first long code and the second long code from the I angle and the Q angle, respectively, of the carrier signal by searching, in parallel, N/2 chips of the first long code and the second long code.--

REMARKS

By this Preliminary Amendment, Applicants cancel claim 1and add new claims 2-7; amend the title; and amend the abstract.

Entry of this Amendment and prompt allowance of the pending claims is respectfully requested.

Respectfully submitted,

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